



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,242	12/12/2003	Naoki Iwata	246574US6	9459

22850 7590 06/19/2007
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

LEE, SUSAN SHUK YIN

ART UNIT	PAPER NUMBER
----------	--------------

2852

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

06/19/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/733,242

Applicant(s)

IWATA ET AL.

Examiner

Susan S. Lee

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 and 21 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-12, 15-19 is/are rejected.
- 7) ☒ Claim(s) 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Upon reconsideration of the claims, the previous indicated allowability of claims 8 and 11 is hereby withdrawn in view of the following prior art to Kasahara et al. (Japan, 02-306262) and Wada (Japan, 63-191157).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, 10, and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (2002/0031363) in view of Kawabata (Japan, 61-205968) and Kasahara et al. (Japan, 02-306262).

Tomita et al. discloses a fixing unit 11 with a pressure belt 14 surrounding rollers 15, 16; and a fixing belt 13 surrounding rollers 17, 18. The two belts come together to

Art Unit: 2852

perform a fixing process for fixing the toner image on the recording medium (sheet) P after a completion of the transfer process. A heater 12 is used to heat the fixing belt 13. Note page 3, paragraphs [0050]- [0053].

Tomita et al. differs from the instant invention by not disclosing the pressure belt holds the recording medium by electrostatic force and the charging unit applies an AC voltage to the belt.

Kawabata discloses a fixing device using a roller electrifying corotron 16a provided on the periphery of a pressure roller 15 at a location prior a contact between pressure roller 15 and a recording medium (form) 5 so that the recording medium 5 is held electrostatically on the surface of the pressure roller 15 during the fixing of the toner image onto the recording medium 5. A corotron 16b is positioned at a location where the recording medium 5 is peeled off the surface of the pressure roller 15. This reads on the instant invention's neutralizing unit. Note abstract and Figs. 4 and 5.

Kasahara et al. discloses after the electrostatic elimination of charger 131, a charger 129 having a superimposed AC current and DC current is used to charge a belt 107 before the transfer sheet S is carried on the belt 107. Note abstract and Fig. 39.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Tomita et al. with that of Kawabata and Kasahara et al. so that the recording medium can be further transported with the pressure belt during the fixing process, thus preventing slippage between the recording medium and the pressure belt.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (363) as modified by Kawabata (Japan, 968) and Kasahara et al. (Japan, 02-306262), as applied to claims 1-5, 10, and 15-18 above, and further in view of Imura et al. (6,284,424).

Tomita et al., as modified by Kawabata and Kasahara et al., differ from the instant invention by not disclosing the electric charger is in the form of a roller.

Imura et al. discloses using a charging roller instead of a corotron for the advantage of producing less ozone in the image forming apparatus. Note column 13, lines 50-56.

Imura et al. shows that charging roller is an equivalent structure known in the art. Therefore, because these two chargers, corotron and roller were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the corotron of Tomita et al. in view of Kawabata and Kasahara et al. for a charging roller to produce less ozone in the image forming apparatus as discussed by Imura et al (note column, lines 50-56).

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (363) as modified by Kawabata (Japan, 968), as applied to claims 1-5, 10, and 15-18 above, and further in view of Honma et al. (5,214,478).

Tomita et al., as modified by Kawabata, differ from the instant invention by not disclosing the electric charger is in the form of a roller or brush.

Honma et al. discloses using a charging roller or a charging brush instead of a corotron. Note column 16, lines 11-17.

Art Unit: 2852

Honma et al. shows that charging roller or charging brush is an equivalent structure known in the art. Therefore, because these chargers, corotron and roller and brush were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the corotron of Tomita et al. in view of Kawabata and Kasahara et al. with that of Honma for a charging roller or charging brush to produce less ozone in the image forming apparatus.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (363) as modified by Kawabata (Japan, 968) and Kasahara et al., as applied to claims 1-5, 10, and 15-18 above, and further in view of Finn et al. (6,733,943).

Tomita et al., as modified by Kawabata and Kasahara et al., differ from the instant invention by not disclosing the coating of the pressure belt is an electric non-conductive material.

Finn et al. discloses a pressure belt 39 made of a polyimide outer layer. Note column 6, lines 24-35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Tomita et al. in view of Kawabata and Kasahara et al. with that of Finn et al. to prevent copy quality defects (note column 12, lines 64-67 of Finn et al.).

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (363) as modified by Kawabata (Japan, 968) and Kasahara et al., as

Art Unit: 2852

applied to claims 1-5, 10, and 15-18 above, and further in view of Wada (Japan, 63-191157) and Honma et al. (5,214,478).

Tomita et al., as modified by Kawabata and Kasahara et al., differ from the instant invention by not disclosing the neutralizing unit in the form of a brush charges with an alternating voltage to the recording medium; and the neutralizing unit is in the form of a brush.

Wada discloses using an AC separating charge 07 to neutralized the electrostatic force between the drum 15 and the paper. Note abstract.

Honma et al. discloses using a charging roller or a charging brush instead of a corotron. Note column 16, lines 11-17.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Tomita et al. in view of Kawabata and Kasahara et al. with that of Wada to prevent paper jam. Honma et al. shows that charging brush is an equivalent structure known in the art. Therefore, because these chargers, corotron and brush were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the corotron of Tomita et al. in view of Kawabata and Kasahara et al. with the charging brush of Honma to produce less ozone in the image forming apparatus.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al. (363) in view of Kawabata (Japan, 968) and Wada (Japan, 63-191157).

Tomita et al., as discussed above, differ from the instant invention by not disclosing the neutralizing unit applying an alternating voltage to the recording medium.

Kawabata discloses a fixing device using a roller electrifying corotron 16a provided on the periphery of a pressure roller 15 at a location prior a contact between pressure roller 15 and a recording medium (form) 5 so that the recording medium 5 is held electrostatically on the surface of the pressure roller 15 during the fixing of the toner image onto the recording medium 5. A corotron 16b is positioned at a location where the recording medium 5 is peeled off the surface of the pressure roller 15. This reads on the instant invention's neutralizing unit. Note abstract and Figs. 4 and 5.

Wada discloses using an AC separating charge 07 to neutralized the electrostatic force between the drum 15 and the paper. Note abstract.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Tomita et al. with that of Kawabata and Wada so that the recording medium can be further transported with the pressure belt during the fixing process, thus preventing slippage between the recording medium and the pressure belt and preventing paper jams.

Allowable Subject Matter

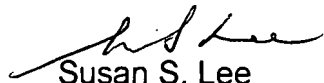
Claims 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 20 and 21 are allowed over the prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 571-272-2137. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119 or 571-272-2800 (Ext. 52). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Susan S. Lee
Primary Examiner
Art Unit 2852